SPECS

PEAVEY ELECTRONICS

Impulse® 1015

(4 and 8 ohm)

Two-Way Weather-Resistant Injection-Molded Speaker System

Built under U.S. Patent 6,064,745

SPECIFICATIONS

Enclosure:
Peavey Impulse® 1015

Frequency Response:
1 meter on-axis, swept-sine in anechoic environment:
60 Hz - 18 kHz (±3 dB) - 8 ohm
58 Hz - 18 kHz (±3 dB) - 4 ohm

Useable Low Frequency Limit (-3 dB point):
60 Hz

Useable Low Frequency Limit (-10 dB point):
44 Hz

Power Handling:
Full Range (8 ohm):
1,000W program
2,000W peak
Bi-amp Low (4 and 8 ohm):
1,000W program
2,000W peak
Bi-amp High (4 and 8 ohm):
120W program
240W peak

Sound Pressure Level (1W @ 1M, in anechoic environment):
Full Range:
99 dB SPL, (4 ohm)
100.0 dB SPL, (8 ohm)
Bi-amp High:
104.0 dB SPL, (2.83 V input)

Maximum Sound Pressure Level (1 meter):
Full Range:
127.0 dB SPL continuous
133.0 dB SPL peak
Biamp Low:
127.0 dB SPL continuous
133.0 dB SPL peak
Biamp High:
121.8 dB SPL continuous
127.8 dB SPL peak

Radiation Angle Measured at -6 dB Point of Polar Response:
500 Hz – 1.6 kHz:
Horiz. 95° +/- 20°
Vert. 100° +/- 30°
1.6 kHz - 5 kHz:
Horiz. 95° +/- 20°
Vert. 60° +/- 10°
5 kHz - 16 kHz:
Horiz. 90° +/- 10°
Vert. 40° +/- 5°

Directivity Factor Q (Mean):
9.55 +/- 3.54

Directivity Index D (Mean):
9.49 dB +/- 1.66 dB

Transducer Complement:
High Frequency Section:
4 ohm: Model 1508 - 4 SPS 15" Black Widow® woofer, and RX™22 - 2" titanium diaphragm compression driver tweeter
8 ohm: Model 1508 - 8 SPS 15" Black Widow® woofer, and RX™22 - 2" titanium diaphragm compression driver tweeter

Box Tuning Frequency:
54 Hz

Electroacoustic Crossover Frequency: 1,800 Hz

Harmonic Distortion:
1% rated power
2nd Harmonic:
100 Hz: 0.41%
1 kHz: 0.18%
3rd Harmonic:
100 Hz: 0.32%
1 kHz: 0.43%
10% rated power
2nd Harmonic:
100 Hz: 1.11%
1 kHz: 0.72%
3rd Harmonic:
100 Hz: 0.91%
1 kHz: 0.67%

Crossover Type:
Passive Internal Two-Way

PEAVEY®

Crossover Slope:

12 dB/octave (2nd order) low pass,
12 dB/octave (2nd order) with padding and CD horn EQ high pass

Recommended Active Crossover Frequency Region and Slope:

Low Frequency - High Frequency:
1800 Hz at 12 dB/octave

Time Offset:

Low Frequency: 0.00 ms
High Frequency: 0.00 ms

Impedance (Z):

	4 ohm	8 ohm
Full Range:		
Nominal:	4.0 Ω	8.0 Ω
Minimum:	3.4 Ω	6.3 Ω
Low Frequency:		
Nominal:	4.0 Ω	8.0 Ω
Minimum:	3.4 Ω	6.3 Ω
High Frequency:		
Nominal:	8.0 Ω	8.0 Ω
Minimum:	5.4 Ω	5.4 Ω

Input Connections:

2x 4-pin Neutrik® & 2x 1/4in. phone jack input,
1x 4-pin switching Neutrik® biamp LF and HF input

Enclosure Materials and Finish:

High impact polypropylene finished in black or white

Mounting Provisions:

2x Versamount® 70 Mounting locations (1 top, 1 bottom) & 1 x stand mount on bottom

Dimensions (H x W x D):

Front:
28.56 in. x 21.31 in. x 17.00 in.
725 mm x 541 mm x 432 mm

Rear:
26.75 in. x 11.50 in. x 17.00 in.
679 mm x 292 mm x 432 mm

Optional Accessories:

Impulse® 1015 Subwoofer

Net Weight: 56 lbs. (25.5 kg)

Shipping Weight: 62.4 lbs.

Additional Remarks:

Also available in biamplified powered unit

Features:

- 1000W program power
- Sound Guard™
- Black Widow® 15" premium woofer
- RX™22 titanium compression driver
- Multiple handgrips and stand mount
- Peak SPL in excess of 133 dB
- Weather-resistant woofer and grille
- Top and bottom flying point inserts
- Molded-in horn with exceptionally smooth response and pattern control

DESCRIPTION:

The Impulse 1015 is a two-way full-range speaker system engineered to pro-

Amplitude Response (1W 1m On-Axis)

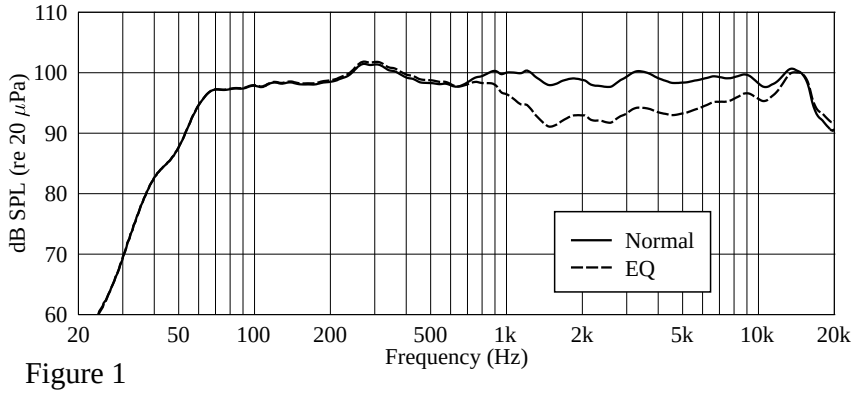


Figure 1

Impedance

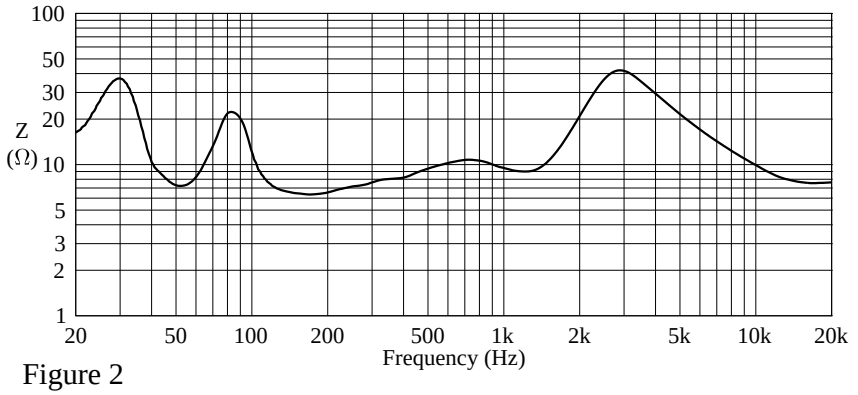


Figure 2

Beamwidth

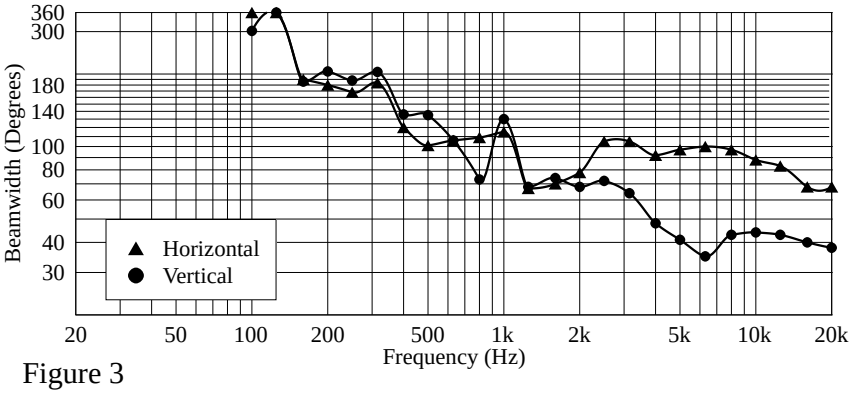


Figure 3

Q & Directivity Index

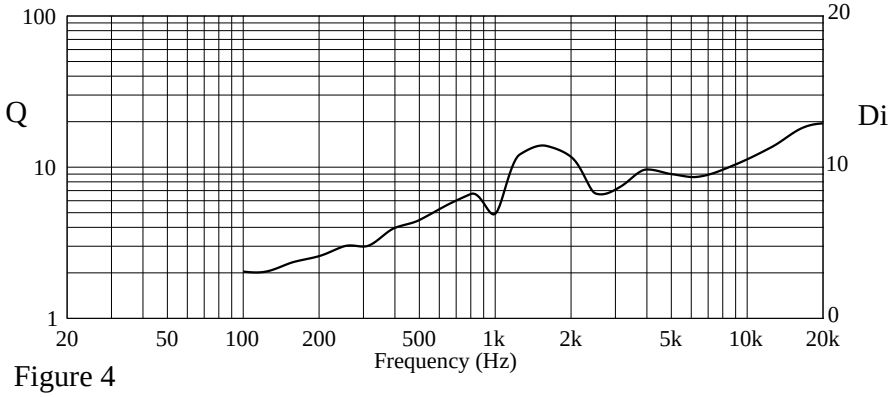


Figure 4

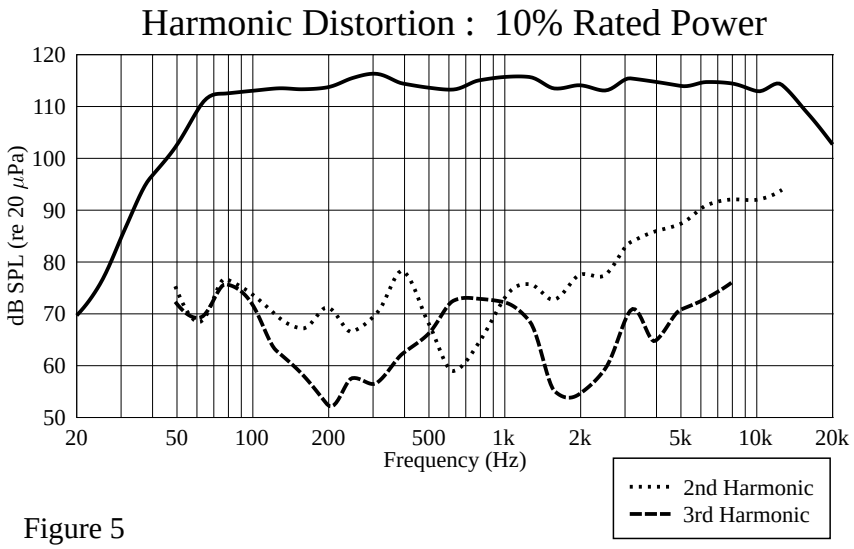


Figure 5

Harmonic Distortion

Second and third harmonic distortions vs. frequency are plotted in Figures 5 and 6 for two power levels. Ten percent (10%) of rated input power and either one percent (1%) of rated input power or one watt, whichever is greater. Distortion is read from the graph as the difference between the fundamental signal (frequency response) and the desired harmonic. As an example, a distortion curve that is down 40 dB from the fundamental is equivalent to 1% distortion.

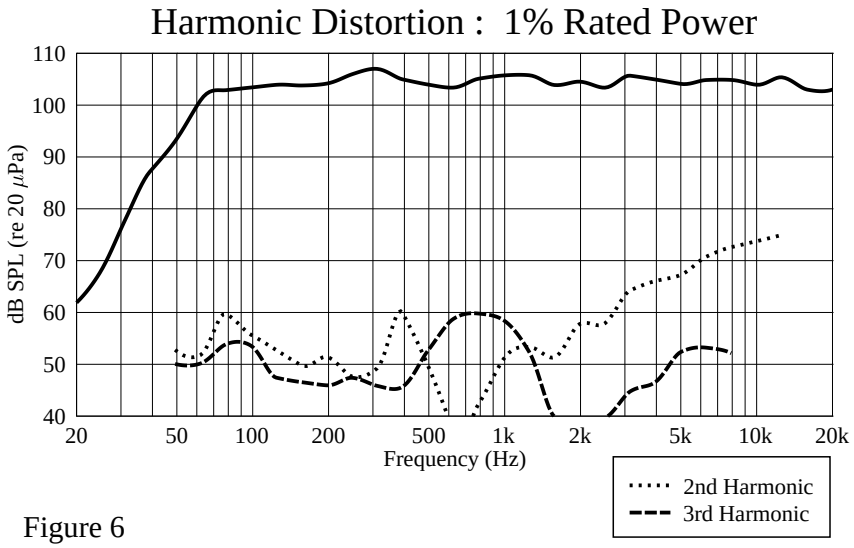


Figure 6

vide ultra-high performance in a portable, compact, weather-resistant package. The enclosure utilizes high-impact polypropylene in an injection-molded plastic trapezoidal shape, along with a coated perforated metal grille to offer a cosmetically elegant yet durable system.

The two-way system includes a 15" Black Widow® woofer with a Kevlar® impregnated cone and a specially treated surround, cone and dust cap for excellent weather resistance. The RX™22 compression driver features a 2" titanium diaphragm, a patented phase plug (U.S. Patent # 6,064,745), and is coupled to an extremely smooth and well controlled constant directivity horn, with a coverage pattern of 90 degrees by 45 degrees that is molded into the enclosure. Input connection to the system is made via 1/4" phone jacks (2) or 4-pin Neutrik® Speakon® connectors. Provisions for biamplification are made through a 4-pin Neutrick switching jack. The internal passive crossover features Sound Guard™ to protect the tweeter, and utilizes high performance components and an advanced topology crossover to provide high power handling and a smooth yet clear response. The optimal integration of the crossover with the selected drivers results in a smooth frequency response from 60 Hz to 18 kHz.

The free-flow vented cabinet offers mounting point inserts top and bottom as well as a molded-in stand adapter for maximum utility and ease of use.

FREQUENCY RESPONSE:

This measurement is useful in determining how accurately a given unit reproduces an input signal. The frequency response of the Impulse 1015 is measured at a distance of 1-meter using a 1 watt (into the nominal impedance) swept-sine input signal. As shown in figure 1, the selected drivers in the Impulse 1015 8 ohm combine to give a smooth frequency response from 60Hz - 18 kHz.

DIRECTIVITY:

Beamwidth is derived from the -6 dB points from the polar plots (Figure 3) which are measured in a whole space anechoic environment. Q and Directivity Index are plotted for the on-axis measurement position. These are specifications that provide a reference to the coverage characteristics of the unit. These parameters provide insight for proper placement and installation in the chosen environment. The blending of the components of the Impulse 1015 8 ohm exhibit a desirable beamwidth and directivity (Figure 3 and 4) suitable for sound reinforcement applications.

POWER HANDLING:

There are many different approaches to power handling ratings. Peavey rates this loudspeaker system's power handling using a full-range form of the AES Standard 2-1984. Using audio band 20 Hz to 20 kHz pink noise with peaks of four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. This rating is contingent upon having a minimum of 3 dB of amplifier headroom available.

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS:

The 4 ohm loudspeaker system shall have an operating bandwidth of 58 Hz - 18 kHz. The nominal output level shall be 99 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 4.0 ohms. The maximum continuous power handling shall be 700 watts, maximum program power of 1,400 watts and a peak power input of at least 2,800 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 95 degrees in the horizontal plane and 70 degrees in the vertical plane. The outside dimensions shall be 28.56 inches high by 21.31 inches wide by 17.00 inches deep. The weight shall be 56 pounds. The loudspeaker system shall be a Peavey model Impulse 1015 4 ohm.

The 8 ohm loudspeaker system shall have an operating bandwidth of 60 Hz - 18 kHz. The nominal output level shall be 100.0 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8.0 ohms. The maximum continuous power handling shall be 500 watts, maximum program power of 1,000 watts and a peak power input of at least 2,000 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 95 degrees in the horizontal plane and 45 degrees in the vertical plane. The outside dimensions shall be 28.56 inches high by 21.31 inches wide by 17.00 inches deep. The weight shall be 56 pounds. The loudspeaker system shall be a Peavey model Impulse 1015 8 ohm.

CAUTION: Before attempting to suspend this speaker, consult a certified structural engineer. Speaker can fall from improper suspension, resulting in serious injury and property damage. Do not suspend or mount any product or device from this enclosure! Maximum enclosure angle 45°. Use only the correct mating hardware. All associated rigging is the responsibility of others.

THREE + TWO LIMITED WARRANTY

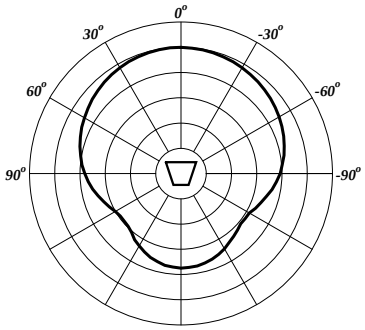
NOTE: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P.O. Box 2898, Meridian, Mississippi 39302-2898.

Neutrik® & Speakon® are a registered trademark of Neutrik AG.

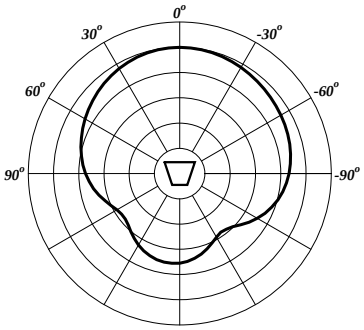
Impulse® 1015

Horizontal Polar Patterns

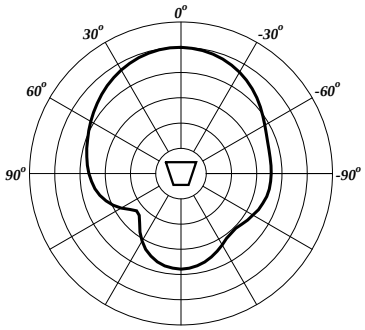
6 dB per Division



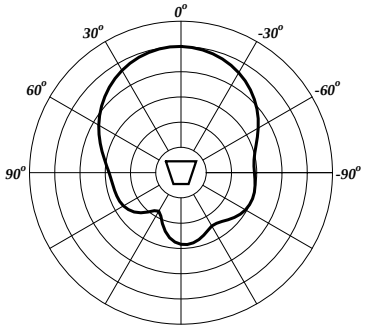
250 Hz



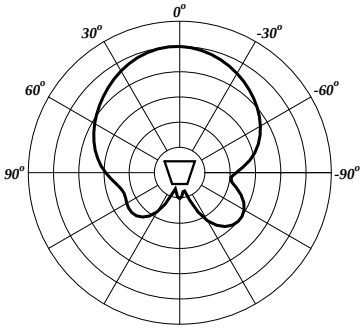
315 Hz



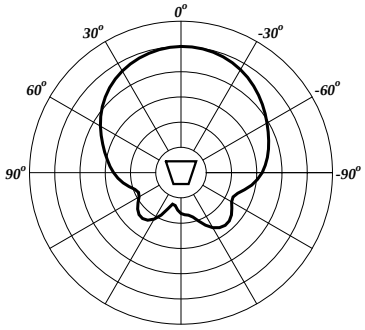
400 Hz



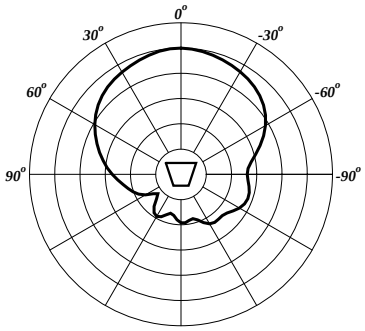
500 Hz



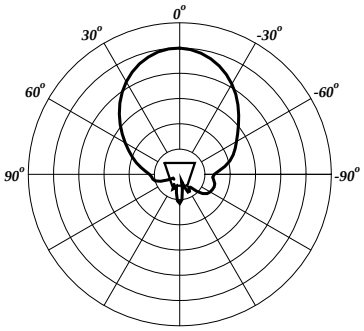
630 Hz



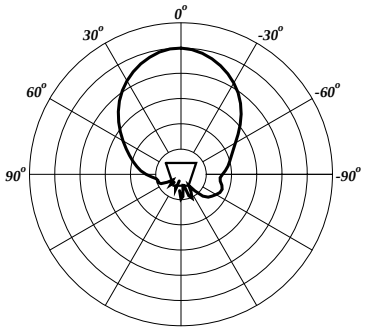
800 Hz



1 kHz



1.25 kHz

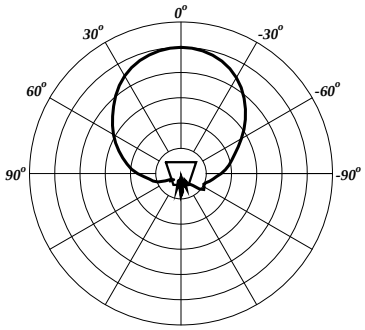


1.6 kHz

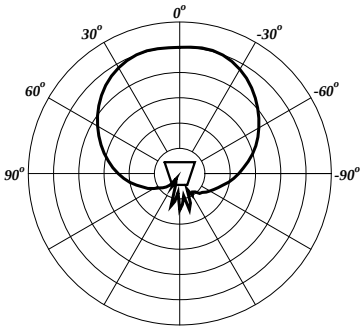
Impulse® 1015

Horizontal Polar Patterns

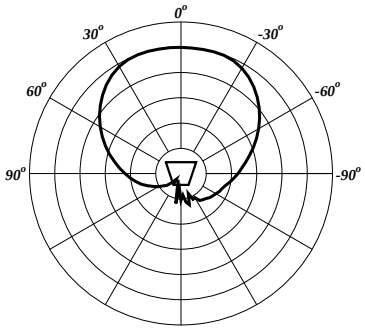
6 dB per Division



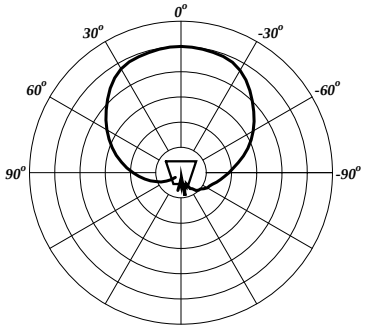
2 kHz



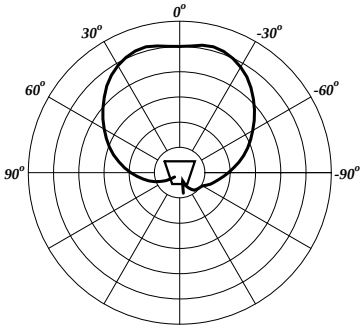
2.5 kHz



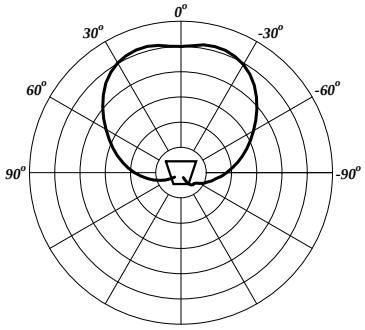
3.15 kHz



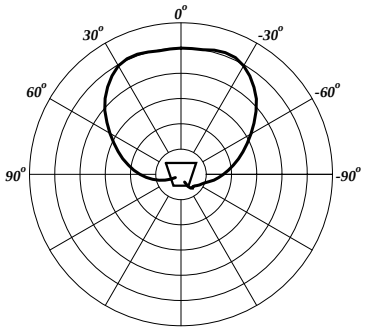
4 kHz



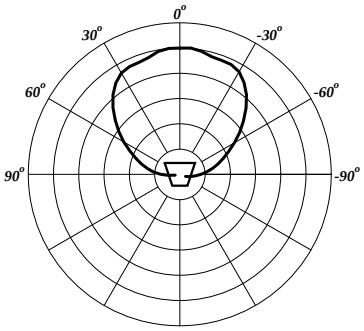
5 kHz



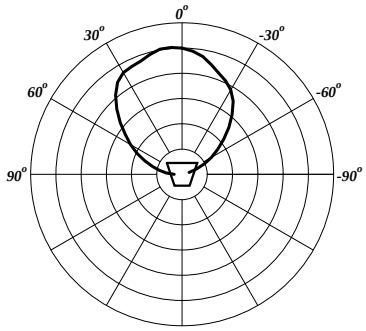
6.3 kHz



8 kHz



12.5 kHz

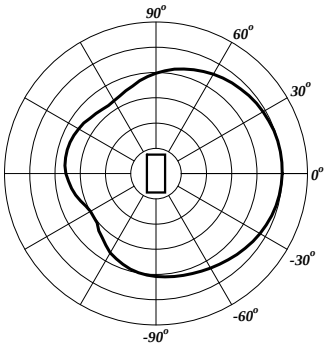


16 kHz

Impulse® 1015

Vertical Polar Patterns

6 dB per Division



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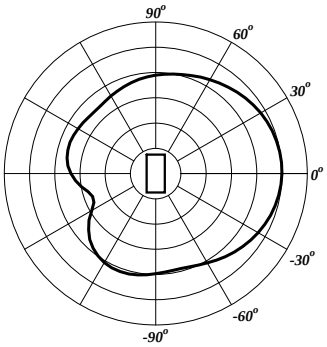
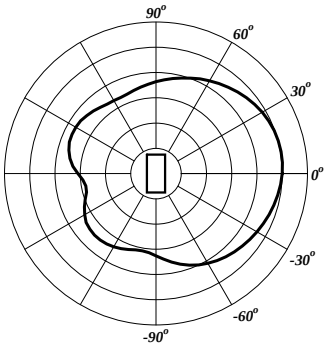


315 Hz



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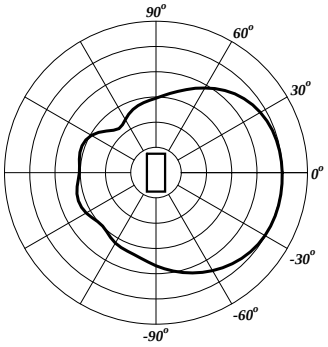
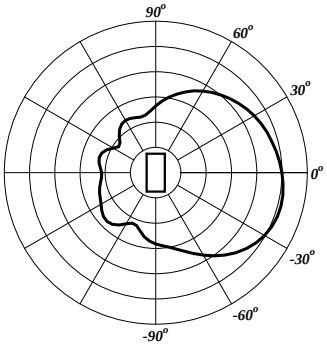


500 Hz



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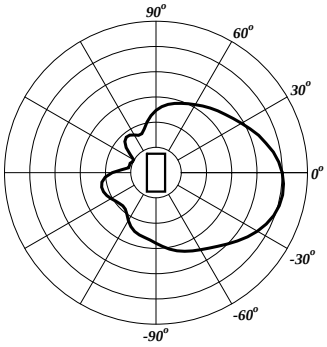
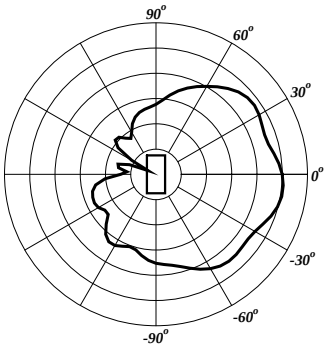
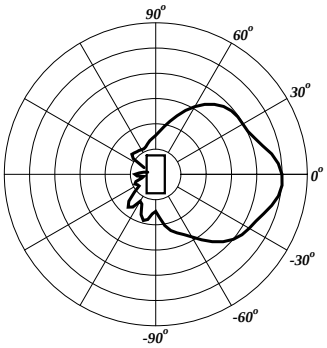


800 Hz



1 kHz



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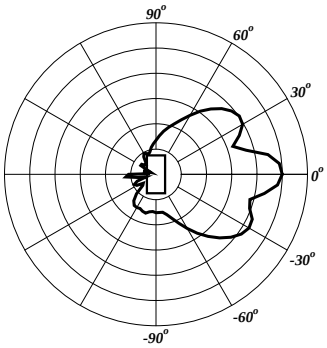
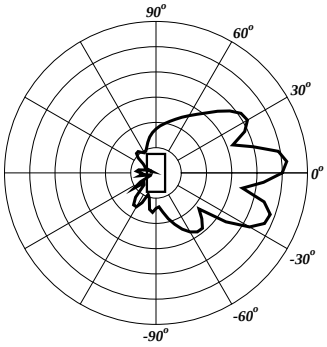


1.6 kHz

Impulse® 1015

Vertical Polar Patterns

6 dB per Division



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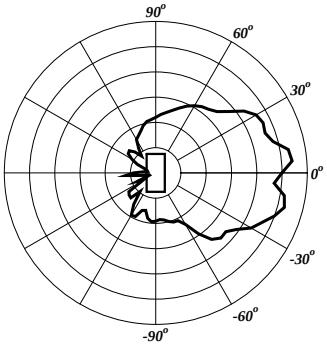

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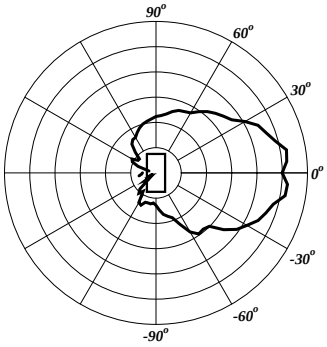

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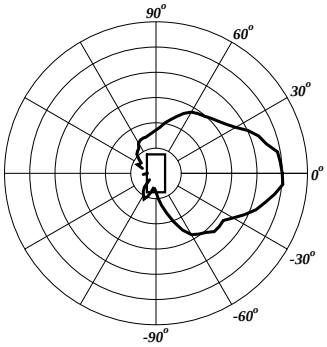
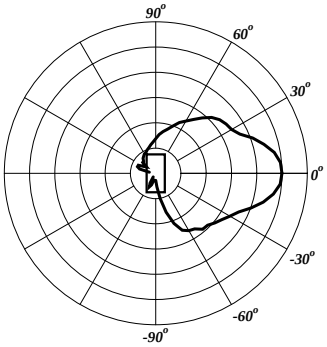
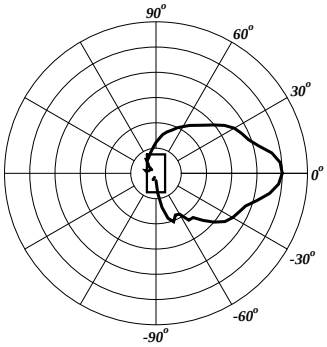


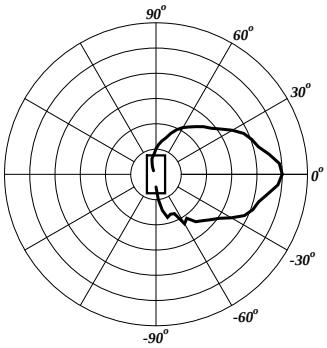
4 kHz



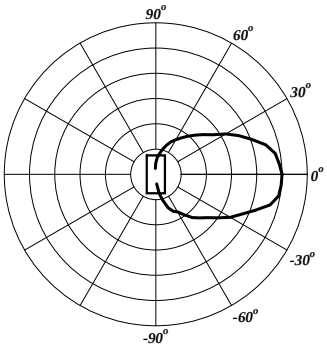
5 kHz



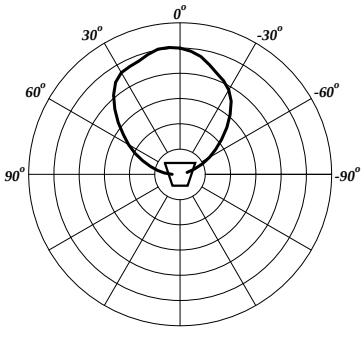
6.3 kHz



8 kHz



12.5 kHz



16 kHz

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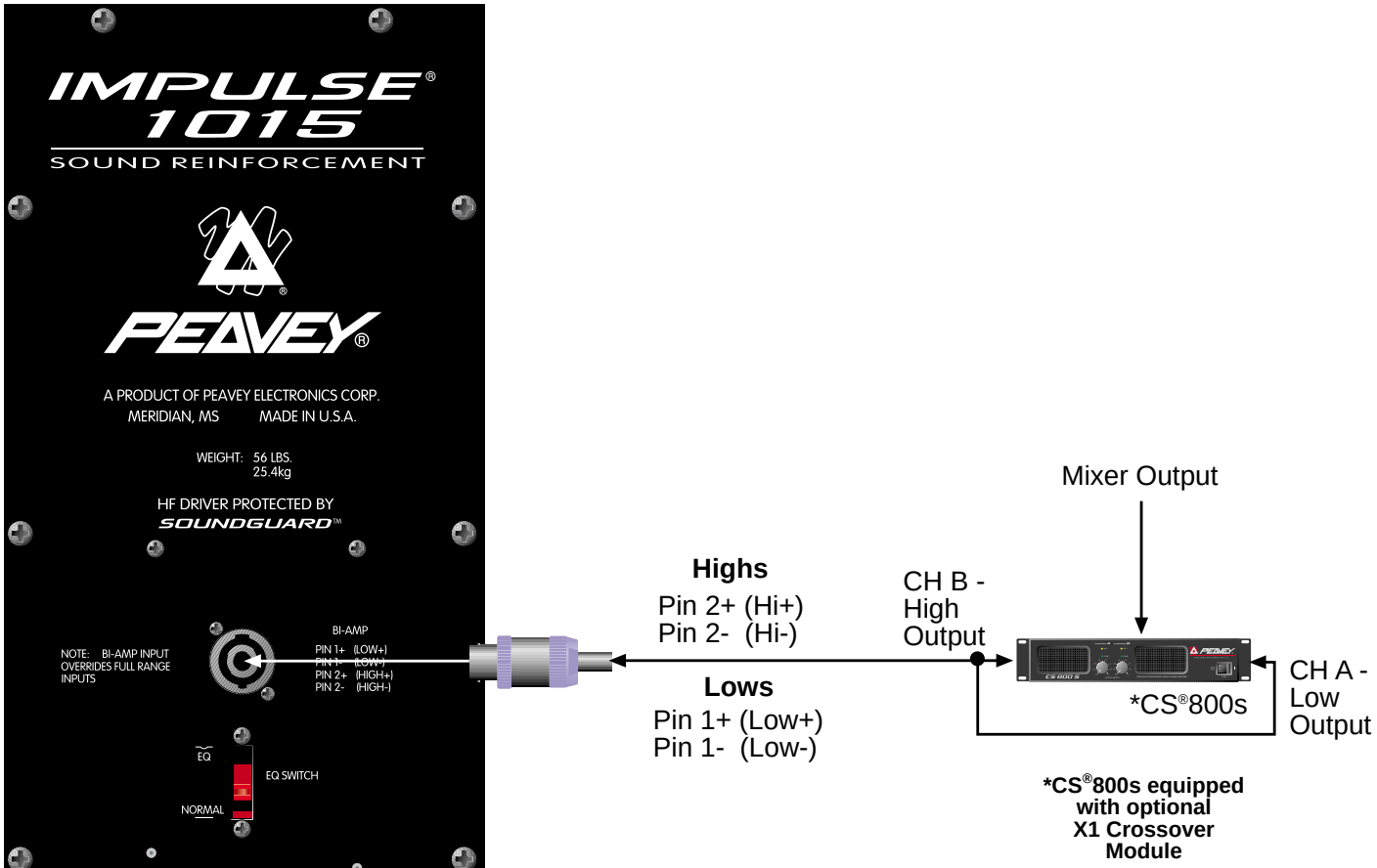
Biamp Wiring Diagram for Speakon® Use



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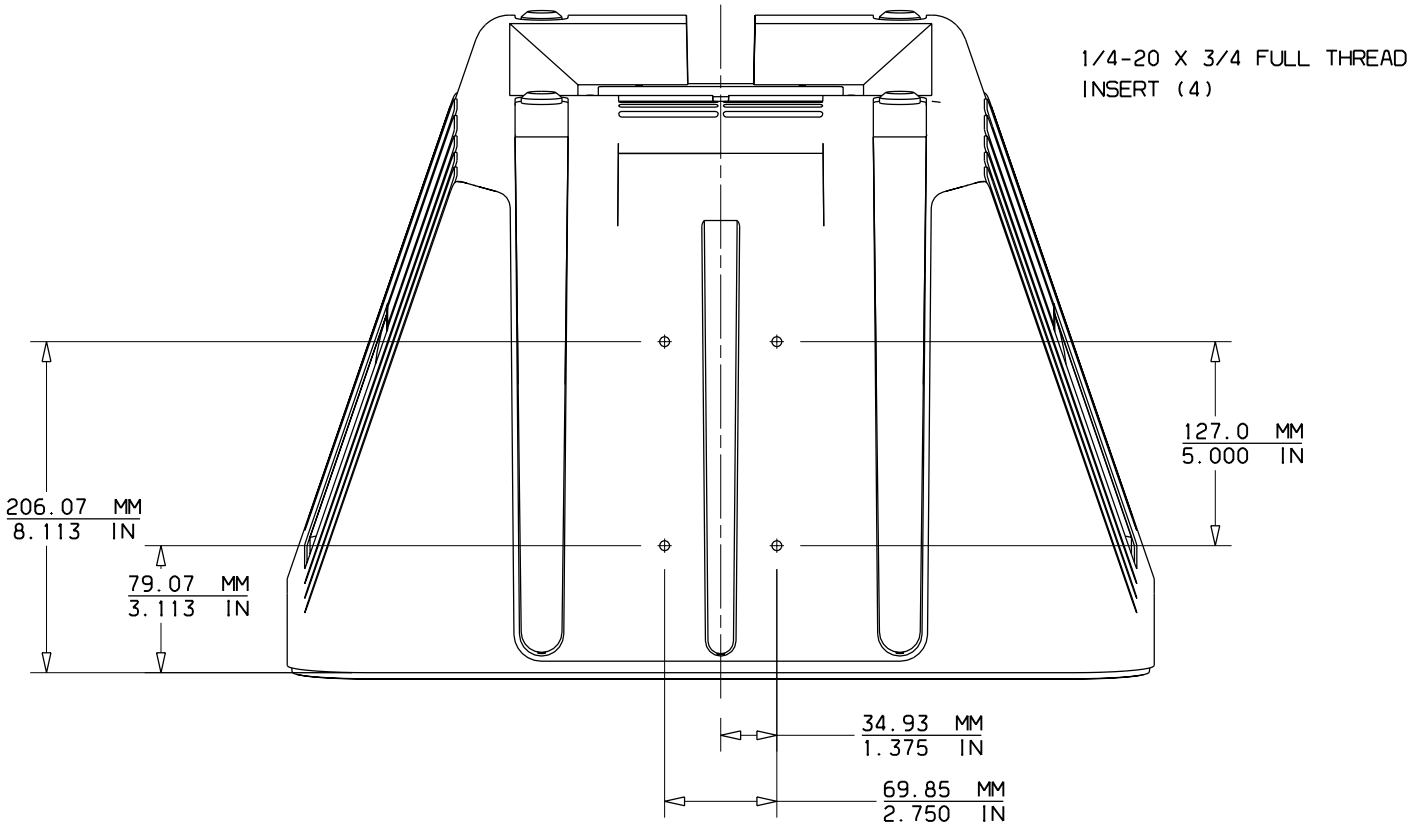
Top Mounting Dimensions



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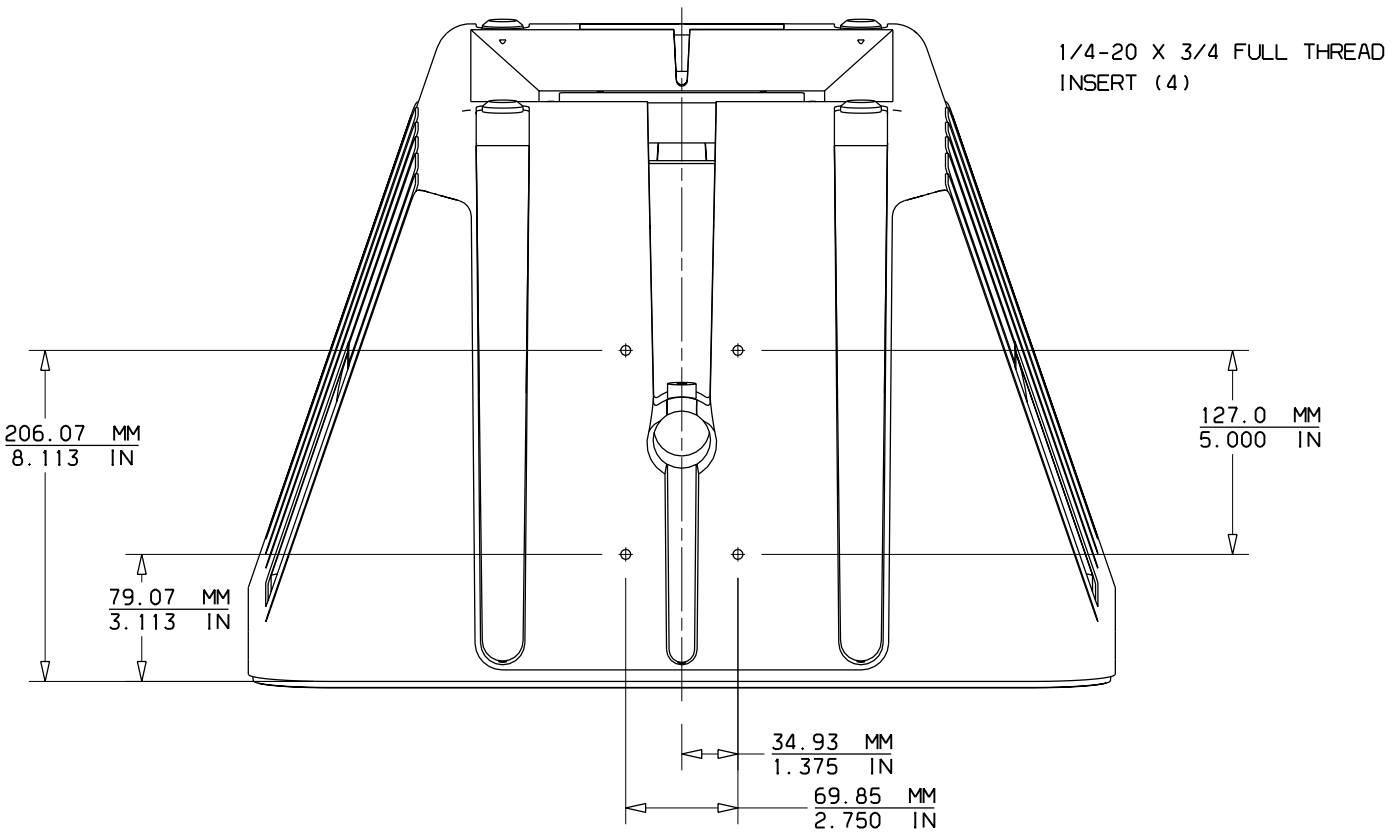
Bottom Mounting Dimensions



Features and specifications subject to change without notice.

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